Synology®

Synology DiskStation DS110+

High-Performance 1-bay All-in-1 NAS Server Provides Peace of Mind for SMB Users

Synology® DiskStation DS110+ offers a high-performance, secure, and full-featured network attached storage solution that helps small and medium-sized businesses centralize backup, protect critical assets and share files quickly and efficiently. Synology protects your investment in the DS110+ with a 2-year limited warranty.

Highlights

- 108.81 MB/sec Reading, 68.27 MB/sec Writing[1]
- 256-bit AES (Advanced Encryption Standard) Hardware Encryption Engine
- Power-saving with only 21W in Operation
- Wake on LAN/WAN
- Scheduled Power On/Off
- Includes Feature-Rich Synology DiskStation Manager 2.3 (DSM 2.3)

High Performance

The Synology DS110+ is designed for business users who require a reliable storage solution and demand high-performance speed for file sharing. The Synology DS110+ delivers an average 108.81 MB/sec reading and 68.27 MB/sec writing speeds in a Windows® environment.

Peace of Mind with Data Encryption

The Synology DS110+ is equipped with an encryption engine which offloads the encryption calculation task away from the main CPU, helping to improve file transfer speeds of the DiskStation. The Synology testing lab shows that the hardware encryption engine boasts read speed that is about 200% faster than the pure software encryption[2].

Data protection is an important matter for businesses of all sizes. High-end features previously available only on enterprise level hardware are now accessible via the DS110+ to small and medium-sized businesses. DiskStation Manager 2.3, standard on all Synology DiskStations, provides share-level AES 256-bit encryption to aid in the prevention of unauthorized access attempts to the hard drives.

Easy Setup and Management

For users who are limited on time or may not be familiar with configuring complicated routers, the Synology EZ-Internet Wizard simplifies the process of allowing access to the Synology DS110+ from the Internet. The EZ-Internet Wizard walks the user through all of the settings required including firewall settings, port-forwarding, PPPoE setup and DDNS registration for a hassle-free solution to remote access.

Running on AJAX technology, DiskStation Manager's UI is intuitive and easy-to-use. To save time and minimize redundancy, common tasks are automated, such as creating private shared folders for a large number of users with the User Home feature. Sub-folder privilege settings further extend the flexibility to allocate permissions to different workgroups.

Synology DiskStation Manager now also offers the ability to customize the management UI for end-users or specific projects.

Complete Backup Solutions

The Synology DS110+ offers a centralized backup target to consolidate fragmented and unstructured data across the network. Integrating easily into a current network structure and compatible with Windows®, Mac®, and Linux systems, the DS110+ provides the entire office data reliability and protection. PC Users can back up their data to the Synology DS110+ using the free Synology Data Replicator software, while Mac OS X users enjoy native Apple® Time Machine® integration. A backup wizard is also provided for backing up data in the DS110+ to another Synology DiskStation or any rsync server via an encrypted transmission, or to an external hard drive via USB or eSATA connection. Furthering options, the wizard also makes it easy to backup to the cloud via Amazon® S3.

Full-featured Business Applications

The Synology D110+ runs on the renowned system firmware, Synology DSM 2.3, offering applications and features designed specifically for SMBs. Comprehensive network protocol support assures seamless file sharing across Windows®, Mac®, and Linux® platforms. Windows® ADS integration allows the Synology DS110+ to quickly and easily fit in an existing business network environment with no need to recreate user accounts.

Internet file access is simplified with the included encrypted FTP server and the web-based file explorer, Synology File Station 3. HTTPS, the built-in firewall, and IP auto-block support ensure file sharing over the Internet is protected at a high security level.

A wealth of additional features allows the Synology DS110+ to replace several pieces of network hardware. Synology Web Station with support for PHP/MySQL content allows for the hosting of up to 30 websites on a single Synology DS110+. Synology Surveillance Station offers a centralized interface to safeguard the office environments by deploying IP cameras throughout the network. The Mail Station add-on turns a Synology DS110+ into a mail server with only few steps of installation and the USB printer sharing capability minimizes businesses' printing cost by sharing printing resources throughout the office.

Using the NFS protocol or iSCSI target support within DiskStation Manager 2.3, the Synology DS110+ provides seamless serving with Windows, Linux, or Virtual Machine Servers.

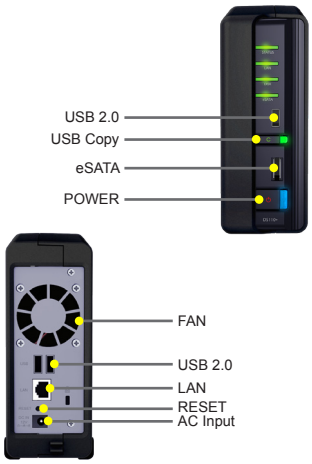
DSM 2.3 users are encouraged to develop and install third-party applications on the Synology DS110+. Meanwhile, a list of third-party applications that were tested by Synology is available for users to install on the Synology DS110+.

Energy Efficient Design

Synology DiskStations are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, the Synology DS110+ consume relatively low amount of power at 21 watts only in operation. The support of Wake on LAN/WAN, scheduled power on/off and hard drive hibernation can further reduce power consumption and operation cost.

All Synology products are produced with RoHS compliant parts and packed with recyclable packing materials. Synology acknowledges the responsibility as a global citizen to continually work to reduce the environmental impact of every product produced.

CONNECTIONS & BUTTONS



Technical Specifications

Hardware

- CPU: 1.06 GHz, 64bit@DDR533
- RAM Size: DDR2 512MB
- Internal HDD[3]: 1X 3.5" SATA(II) or 1X 2.5" SATA/SSD
- External HDD Interface: 3X USB ports, 1X eSATA port
- Size: 160mm X 63mm X 218mm
- Weight: 0.81kg
- LAN: 1X Gigabit
- Wireless Support[4]
- Hardware Encryption Engine
- Fan: 1X (50mm X 50mm)
- Noise Level[5]: 20.9 dB(A)
- Power Recovery
- AC Input Power Voltage: 100V to 240V
- Power Frequency: 50Hz to 60Hz, Single Phase
- Max Internal Capacity: 2TB
- Operating Temperature: 5°C to 35°C (40°F to 95°F)
- Storage Temperature: -10°C to 70°C (15°F to 155°F)
- Relative Humidity: 5% to 95% RH
- Max Operating Altitude: 10,000 feet
- Power Consumption[6]: 21W (Access); 12W (HDD Hibernation)
- Certification: FCC Class, CE Class B, BSMI Class B

Applications

File Station 3

FTP Server
- Bandwidth Control
- Custom FTP Passive Port Range
- Anonymous FTP
- Transfer Log

Web Station
- Virtual Host (up to 30 websites)
- PHP/MySQL
- Alternative HTTP Error Page
- 3rd-Party Applications Support

Surveillance Station 4
- Default IP cam #: 1
- MAX IP cam # (licenses required): 12[7]

Photo Station 4
- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, RAW (arw, srf, sr2, dcr, k25, kdc, cr2, crw, nef, mrw, ptx, pef, raf, 3fr, erf, mef, mos, orf, rw2, dng, x3f)
- Supported Video Format[8]: 3G2, 3GP, ASF, AVI, DAT, DivX, FLV, M4V, MOV, MP4, MPEG, MPG, QT, WMV, XviD, RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3

Download Station 2
- Supported Download Protocols: BT/HTTP/FTP/NZB/eMule
- Custom BitTorrent Port Range
- BitTorrent / eMule Bandwidth Control

Audio Station 2
- Supported Audio Format: (USB Mode) AAC, FLAC, M4A, MP3, Ogg Vorbis, WMA, WMA VBR; (Streaming Mode) MP3, M4A, M4B
- Supported Playlist Format: M3U, WPL
- Internet Radio: SHOUTcast, Radioio

DLNA/UPnP Media Server Support
- PS3/Xbox 360 Support
- Supported Audio Format: AAC, FLAC, M4A, MP3, Ogg Vorbis, PCM, WAV, WMA, WMA VBR, WMA PRO, WMA Lossless
- Supported Video Format: 3GP, 3G2, ASF, AVI, DAT, DivX, DVR-MS, ISO, M2T, M2TS, M4V, MKV, MP4, MPEG1, MPEG2, MPEG4, MTS, MOV, QT, SWF, TP, TRP, TS, VOB, WMV, XviD, RV30, RV40, AC3, AMR, WMA3
- Supported Image Format: BMP, JPG (jpe, jpeg), GIF, ICO, PNG, PSD, TIF (tiff), UFO, RAW (arw, srf, sr2, dcr, k25, kdc, cr2, crw, nef, mrw, ptx, pef, raf, 3fr, erf, mef, mos, orf, rw2, dng, x3f)
- Supported Subtitles Format: srt, psb, smi, ass, ssa, sub, idx, ifo

iTunes Server
- Supported Audio Format[9]: MP3, M4A, M4P, WAV, AIF
- Supported Video Format: M4V, MOV, MP4
- Supported Playlist Format: M3U, WPL

Printer Support[10]
- Max Printer #: 2
- Supported Protocols: LPR, CIFS, AppleTalk

Synology Packages
- Mail Station
- SqueezeCenter
- Weblizer
- phpMyAdmin

iPhone Applications
- DS photo
- DS audio
- DS cam

General Specifications

Networking Protocols
- CIFS, AFP, FTP, iSCSI, Telnet, SSH, NFS, SNMP

File System
- EXT3
- FAT32 (External Disk Only)[11]
- NTFS (External Disk Read Only)[12]

Volume Management
- iSCSI Target (Max size: 16TB): 10
- Volume Type: Basic

File Sharing Capability
- Max User Account: 2048
- Max Group: 256
- Max Shared Folder: 256
- Max Concurrent Connections (SAMBA, FTP, AFP): 256

Windows ADS Domain Integration
- Domain Users login via Samba/AFP/FTP/File Station

Backup Solutions
- Network Backup
- Local Backup
- Desktop Backup (using Synology Data Replicator 3 or Apple Time Machine backup application)
- USBCopy
- 3rd-Party Backup Support

Security
- FTP over SSL/TLS
- IP Auto-Block
- Firewall
- Encrypted Network Backup over Rsync
- HTTPS Connection

Management
- DSM Upgrade
- Email Notification
- SMS Notification
- Customized User Quota
- DDNS Support
- PPPoE
- Resource Monitor
- UPS Management
- Scheduled Power On/Off
- Custom Management UI HTTP/HTTPS Ports
- System Temperature Display

HDD Management
- HDD Hibernation
- S.M.A.R.T.
- Dynamic Bad Sector Mapping

Utilities
- Synology Assistant
- Synology Download Redirector
- Synology Data Replicator 3

Supported Browsers
- Internet Explorer 7
- Internet Explorer 8
- Firefox 3
- Firefox 3.5
- Safari 3 (Mac)
- Safari 4 (Mac)

Supported Clients
- Windows 2000 onward
- Mac OS X 10.3 onward
- Ubuntu 9.04 onward

Supported Mobile Devices (Photo Station, File Station)
- iPhone OS 2.2.1 onward
- Windows Mobile (IE Mobile or Opera 9.0 onward)
- Symbian OS 9.1, S60 3rd Edition onward

Language
- Czech, Danish, Dutch, English, French, German, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese Brazil, Portuguese European, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, Turkish

Environment and Packaging

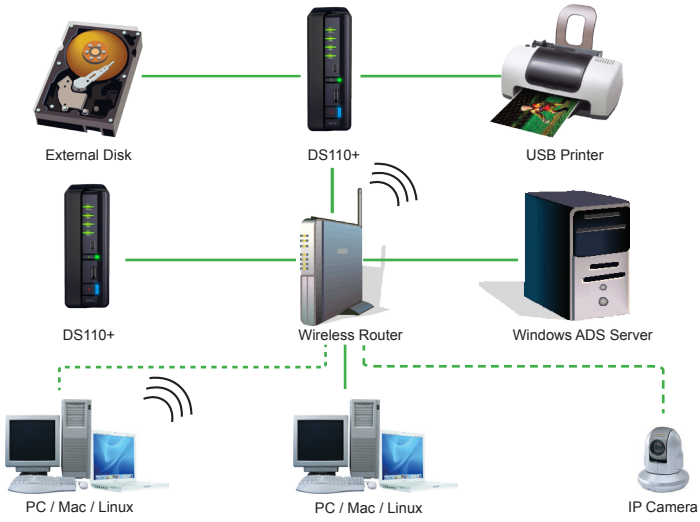
Environment
- RoHS Compliant

Package Content
- DS110+ Main Unit
- Installation CD
- Welcome Note
- Assembling Kit
- AC Power Adaptor
- AC Power Cord
- 2M RJ-45 LAN Cable

Optional Accessories
- Remote
- Camera License Pack

1. The performance figures are achieved in Synology lab by using very powerful client computers with extremely optimized network settings, and could vary on different environments. A regular office desktop/notebook may not be able to achieve these high performance figures.
2. The performance figures are achieved in Synology lab by using very powerful client computers with extremely optimized network settings, and could vary on different environments. A regular office desktop/notebook may not be able to achieve these high performance figures.
3. Hard drive not included.
4. Wireless dongles not included. Please check http://www.synology.com/ for supported wireless dongles
5. Fully loaded with Seagate 1TB ST31000520AS hard drive(s) in operation; Two G.R.A.S. Type 40AE microphones, each set up at 1 meter away from the DiskStation front and rear; Background noise: 17.2 dB(A); Temperature: 23.6°C; Humidity: 58.2%; More details about dB(A) value, check: http://www.quietnoise.com/facts.htm
6. Measured with 1 Seagate 750GB ST3750640NS hard drive. The figures could vary on different environments.
7. 1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.
8. User can click and download the following video formats: RM, RMVB, VOB, RV30, RV40, AC3, AMR, WMA3, but not able to play it in Photo Station as compressed Flash video.
9. The music in WAV and AIF format can be streamed, but the metadata (ex: title, album) may not be indexed on the iTunes.
10. For Mac users, DS110+ supports PostScript USB printers only.
11. Primary partition only.
12. Primary partition only.

Networking



SYNOLOGY INC.

Founded in 2000, Synology is a young and energetic company dedicated to developing high-performance, reliable, versatile, and environmentally-friendly Network Attached Storage (NAS) products. Our goal is to deliver user-friendly solutions and solid customer service to satisfy the needs of businesses, home offices, individual users and families.

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http://www.synology.com

Headquarters
Synology Inc.
3F-3, No. 106, Chang An W. Rd., Taipei, Taiwan
Tel: +886 2 2552 1814 Fax: +886 2 2552 1824

North & South America
Synology America Corp.
2899 152nd Ave NE, Redmond, WA 98052. USA
Tel: +1 425 818 1587

Synology UK Ltd.
Davy Avenue, Knowlhill,
Milton Keynes, Bucks,
MK5 8PB, UK
Tel: +44 01908 673 709